



217/782-6760

Refer to: L1190400007-Madison County
Taracorp.NL Industries/Technical

July 22, 1991

Mr. Brad Bradley
Remedial Project Manager (5HS-11)
U.S. EPA Region 5
230 S. Dearborn
Chicago, IL 60604

Dear Mr. Bradley:

In accordance to your request, I am submitting pages from the February 1990 Revised Closure Plan for the St. Louis Recyclers facility in Granite City, Illinois which describe the exploratory excavations made. At one of the four excavations conducted around the site, battery casing and slag layers were encountered. The layers encountered at this one location (designated EX-1) extended beyond the depth of the four-foot excavation. It was recommended that additional borings or excavations are needed to determine the extent of the battery casing and slag layers.

For more information regarding the excavation, you may want to look at the closure plan itself. According to the cover letter for the closure plan (dated 2/22/90), you should have received a copy.

If you have any questions, feel free to call me at 217/782-1803.

Sincerely,

Shirley Baer, Project manager
Federal Sites Management Unit
Remedial Project Management Section
Division of Land Pollution Control

SB:pss

SB:pss

Enclosure

cc: Division File
Charles Zeal/Eric Minder

on the Facility Plan (see Figure 6). Minor amounts of lead oxide residue may be present within the treatment units

4.4 HWMU-4 - Battery Chip and Slag/Matte Waste Piles -- (Process Code S03)

The hard rubber chips that exit the flotation separator (see Figure 5) were accumulated over the approximately seven (7) months of operation in a pile placed on Trust 454 property (see Figure 3). It was estimated at the time the Part A Application was filed in 1986 that there were approximately 6000 cubic yards of rubber chips in the waste pile. No estimate was given for the volume of slag/matte. The correct volumes, based on a recent survey by SMS Engineers is 3640 cubic yards of rubber chips and 416 cubic yards of slag and matte (see Figure 3).

4.4.1 Waste Pile Characterization

In an effort to characterize the rubber chips, slag, and matte at the site, samples of each were collected (see Appendix G for description of sampling procedures) (Envirodyne Engineers, 1989). Each sample was analyzed for the EP Tox metals and total metals for EP Tox list of metals. In addition, a sample of each of the materials was analyzed for the TCLP list of parameters, reactivity, and corrosivity (see Table 4 for a list of the analytical methods and Table 5 for a list of the TCLP parameters).

Eight (8) samples were collected from the battery chip pile (BC-1 to BC-8) along with two (2) slag samples (SP-1 and SP-2) and two (2) matte samples (MP-1 and MP-2). Waste pile sampling locations are indicated on Figure 3. The analytical results are summarized in Tables 6 and 7. The findings of the waste pile sampling can be summarized as follows:

- (1) Based on the results of the inorganic and organic analyses of samples collected from the site, the only contaminant of concern in any of the waste piles is lead.
- (2) The total lead content of the battery chips varied from approximately one percent to four percent. This is in significant contrast with earlier sampling results indicating a lead content of between 11 percent and 29 percent (O'Brien and Gere, 1988).
- (3) The total lead content of the slag varied from approximately four percent to 15 percent.
- (4) The total lead content of the matte varied from 0.3 percent to 0.35 percent.
- (5) Leachable lead (EP TOX) in the battery chips varied from 0.9 ppm to 123 ppm. The regulatory limit for lead is 5 ppm, therefore, the battery chips are a hazardous waste.
- (6) Leachable lead (EP TOX) in the slag varied from 378 ppm to 1192 ppm. The regulatory limit for lead is 5 ppm, therefore, the slag is a hazardous waste.
- (7) Leachable lead (EP TOX) value for the matte varied from 0.449 ppm to 1.63 ppm.

In summary, the lead content of the battery chip and slag piles is quite variable. In addition, the lead in these materials exceeds the regulatory limit for leachability.

RCRA Closure Plan
St. Louis Lead Recyclers Facility
D&M Job No. 19076-001-045
February 22, 1990